INCH-POUND
MIL-PRF-3098/93B
May 17, 2004
SUPERSEDING
MIL-PRF-3098/93A
1 October 1997

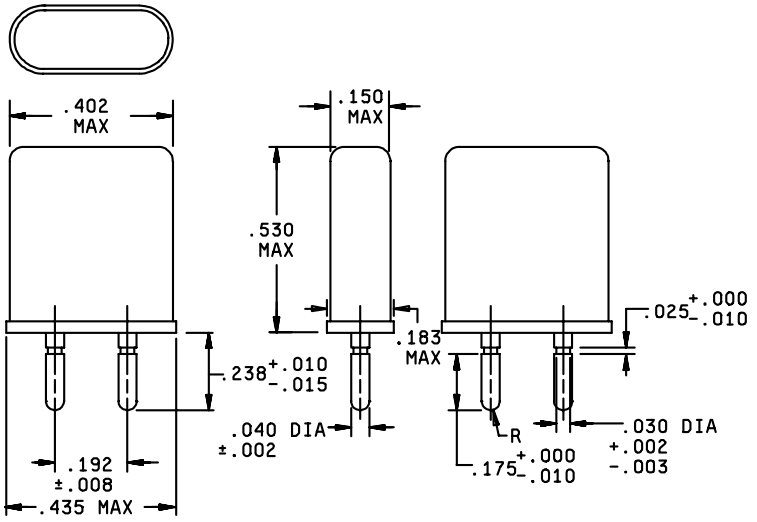
PERFORMANCE SPECIFICATION SHEET

CRYSTAL UNIT, QUARTZ, CR117/U

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-3098.

Pertinent characteristics: 30 MHz to 63 MHz; third mechanical overtone; noncontrolled; series resonance.



Inches	mm	Inches	mm
.002	.05	.150	3.81
.003	.08	.175	4.45
.008	.20	.183	4.65
.010	.25	.192	4.88
.015	.38	.238	6.05
.025	.64	.402	10.21
.030	.76	.435	11.05
.040	1.02	.530	13.46

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking to be in accordance with MIL-PRF-3098.

FIGURE 1 Crystal unit - CR117/U.

REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 30 MHz to 63 MHz, inclusive.

Frequency tolerance:

Operating temperature range: ±0.0015 percent of frequency measured at 25°C.

Reference temperature: ±0.001 percent.

Mode of oscillation: Third mechanical overtone.

Operating temperature range (noncontrolled): -40°C to +65°C, inclusive.

Reference temperature: 25°C.

Operable temperature range: +65°C to +80°C, inclusive.

Frequency and equivalent resistance: Method A, MIL-PRF-3098.

Resonance: Series.

Rated drive level: 1.0 mW, maximum.

Calibration values:

Resistance: 40 ohms.

Crystal current: 0.28 mA.

Capacitance, shunt: 7 pF, maximum.

Equivalent resistance: 40 ohms, maximum.

Shock: Method 202, MIL-STD-202.

Frequency change permitted: ±0.0005 percent.

Equivalent-resistance change permitted: ±10 percent.

Vibration: Method 204, MIL-STD-202, test condition A; 0.03 inch (0.06 inch total excursion) 10 cps to 55 cps; amplitude to produce 5 gravity units, 55 cps to 500 cps.

Frequency change permitted: ±0.0005 percent.

Equivalent-resistance change permitted: ±10 percent.

Aging:

Frequency change permitted: ±0.0005 percent.

Reference documents. In addition to MIL-PRF-3098, this document references the following:

MIL-STD-202

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodian:
Air force - 11
DLA – CC

Preparing activity:
DLA - CC

(Project 5955-0761)

Review activities:
Air force - 19

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at www.dodssp.daps.mil.